



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
[www.uspto.gov](http://www.uspto.gov)

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/749,281	12/31/2003	Norman T. Huff	24997D	9783
22889	7590	05/02/2006	EXAMINER	
OWENS CORNING 2790 COLUMBUS ROAD GRANVILLE, OH 43023			SAN MARTIN, EDGARDO	
			ART UNIT	PAPER NUMBER
			2837	

DATE MAILED: 05/02/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	10/749,281	HUFF ET AL.	
	<b>Examiner</b>	<b>Art Unit</b>	
	Edgardo San Martin	2837	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### **Status**

- 1) Responsive to communication(s) filed on 31 December 2003.
- 2a) This action is **FINAL**.                                   2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### **Disposition of Claims**

- 4) Claim(s) 1-43 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) Claim(s) \_\_\_\_\_ is/are allowed.
- 6) Claim(s) 1-43 is/are rejected.
- 7) Claim(s) \_\_\_\_\_ is/are objected to.
- 8) Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### **Application Papers**

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on \_\_\_\_\_ is/are: a) accepted or b) objected to by the Examiner.  
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### **Priority under 35 U.S.C. § 119**

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) All    b) Some \* c) None of:
  1. Certified copies of the priority documents have been received.
  2. Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### **Attachment(s)**

1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)	4) <input type="checkbox"/> Interview Summary (PTO-413)
2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)	Paper No(s)/Mail Date. _____
3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date <u>11/15/04:4/06/05</u> .	5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)
	6) <input type="checkbox"/> Other: _____

## **DETAILED ACTION**

### ***Information Disclosure Statement***

1. No copies of the foreign patents cited on the Information Disclosure Statement filed on April 6, 2005 were included, the references have not been considered.

### ***Specification***

2. The disclosure is objected to because of the following informalities:

- The current status of US Patent Application No. 09/992,254 is missing;
- There is no detailed description of Figure 6.

Appropriate correction is required.

### ***Claim Objections***

3. Claims 17 and 35 are objected to because of the following informalities:

- The Examiner considers that it is not clear as to what the phrase "the **flex section** in one of welded and clamped to the exhaust pipe";
- Claim 35 is missing the ending period.

Appropriate correction is required.

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which the subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

4. Claims 1 – 11 and 32 – 43 are rejected under 35 U.S.C. 103(a) as being unpatentable over Inoue et al. (US 4,993,513) in view of Fritz (US 5,955,707).

With respect to claims 1 and 32, Inoue et al. teach a muffler/exhaust pipe system comprising a muffler (Fig.4, Item 30) having an outer shell (Fig.4, Item 33d) formed from a composite material wherein a pipe (Fig.4, Item 31) extends through the outer shell; a collar (Fig.4, Item 34) having a wide end and a narrow end wherein the narrow end is fitted around the exhaust pipe (Fig.4, Item 31)(Col.2, Line 30 – Col.3, Line 4 and Col.4, Lines 39 – 60); but fail to disclose wherein a perforated pipe extends through the outer shell and a bushing fitted around the wide end of the collar wherein the muffler shell is in contact with the bushing.

Nevertheless, Fritz teaches a muffler comprising a muffler (Fig.4, Item 3) having an outer shell (Fig.4, Item 3) formed from a composite material wherein a perforated pipe (Fig.4, Item 29) extends through the outer shell; and a bushing (Fig.4, Item 5) fitted around the perforated pipe wherein the muffler shell is in contact with the bushing (Fig.4).

It would have been obvious to a person with ordinary skill in the art at the time of the invention was made to employ the Fritz bushing configuration with the Inoue et al. design because the bushing would provide a vibration isolation feature that would help reduce the presence of vibration during the use of the vehicle that would produce noise, and would help maintain the consistency of the muffler structure.

With respect to claims 2 – 11 and 33 - 43, the Examiner considers that the obvious combination of the patents to Inoue et al. and Fritz teach the limitations

described in the claims (Inoue et al.: Fig.4; Col.2, Line 30 – Col.3, Line 4 and Col.4, Lines 39 – 60; and Fritz: Fig.4; Col.2, Line 14 – Col.3, line 53). In addition, it has been held to be within the general skill of a worker in the art to select a known material on the basis of its suitability for the intended use as a matter of obvious design choice. *In re Leshin*, 125 USPQ 416.

5. Claims 12 – 31 are rejected under 35 U.S.C. 103(a) as being unpatentable over Inoue et al. (US 4,993,513) in view of Fritz (US 5,955,707), and further in view of Zahn et al. (US 5,726,398).

With respect to claims 16 and 22, Inoue et al. and Fritz teach the limitations discussed in a previous rejection, but fail to disclose wherein the muffler design is part of a bumper/muffler/exhaust pipe system.

On the other hand, Zahn et al. teaches a bumper /muffler /exhaust pipe configuration (Figs.1 – 7; Col.4, Line 34 – Col.8, Line 37).

It would have been obvious to a person with ordinary skill in the art at the time of the invention was made to combine the Zahn et al. configuration with the Inoue et al. and Fritz design because by employing the bumper as part of the muffler, space and sound absorbing material could be economized improving the production cost of the vehicle.

With respect to claims 12 – 31, the Examiner considers that the obvious combination of the patents to Inoue et al., Fritz and Zahn et al. teach the limitations as described in the claims (Inoue et al.: Fig.4; Col.2, Line 30 – Col.3, Line 4 and Col.4, Lines 39 – 60; Fritz: Fig.4; Col.2, Line 14 – Col.3, line 53; and Zahn et al.: Figs. 1 – 7;

Col.4, Line 34 – Col.8, Line 37). In addition, it has been held to be within the general skill of a worker in the art to select a known material on the basis of its suitability for the intended use as a matter of obvious design choice. *In re Leshin*, 125 USPQ 416; furthermore, it has been held that rearranging parts of an invention involves only routine skill in the art. *In re Japikse*, 86 USPQ 70.

***Conclusion***

6. The attached hereto PTO Form 892 lists prior art made of record that the Examiner considered it pertinent to applicant's disclosure.

***Contact Information***

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Edgardo San Martin whose telephone number is (571) 272-2074. The examiner can normally be reached on 8:00AM - 5:00PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Paula Bradley can be reached on (571) 272-2800 ext.33. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Edgardo San Martín  
Primary Examiner  
Art Unit 2837  
Class 181  
April 30, 2006